

## **IN THE CLAIMS:**

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-145 (Canceled)

146. (New) A method for providing access to a network system which comprises a network, the method comprising:

- a first access point coupled to the network receiving identification information from a portable computing device in a wireless manner, wherein the identification information indicates a first VLAN of a plurality of possible VLANs;

- the first access point determining the first VLAN of the plurality of possible VLANs for the portable computing device after receiving the identification information;

- the first access point receiving data from the portable computing device; and

- providing the received data to the network using the first VLAN determined in said determining.

147. (New) The method of claim 146,

- wherein the first VLAN corresponds to a first network destination;

- wherein said providing comprises providing the received data to the first network destination using the first VLAN.

148. (New) The method of claim 146,

- wherein each of the plurality of possible VLANs corresponds to a respective network destination of a plurality of possible network destinations;

- wherein the first VLAN corresponds to a first network destination;

- wherein said providing comprises providing the received data to the first network destination using the first VLAN.

149. (New) The method of claim 148,  
wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

150. (New) The method of claim 148,  
wherein at least a subset of the network destinations comprise wireless service providers.

151. (New) The method of claim 148,  
the first access point coupled to the network receiving second identification information from a second portable computing device in a wireless manner, wherein the second identification information indicates a second VLAN of the plurality of possible VLANs;

the first access point determining the first VLAN of the plurality of possible VLANs for the portable computing device after receiving the identification information;  
the first access point receiving data from the portable computing device; and  
providing the received data to the network using the first VLAN determined in said determining.

152. (New) The method of claim 146, further comprising:  
the first access point receiving second identification information from a second portable computing device in a wireless manner, wherein the second identification information indicates a second VLAN of the plurality of possible VLANs;

the first access point determining the second VLAN of the plurality of possible VLANs after receiving the second identification information;

the first access point receiving second data from the second portable computing device; and

providing the second received data to the network using the second VLAN determined in said determining.

153. (New) The method of claim 146,

wherein the network system includes a memory medium which stores a data structure comprising a list of identification information and a corresponding list of the plurality of possible VLANs; and

wherein said determining the first VLAN of the plurality of possible VLANs includes accessing the memory medium and using the received identification information to determine the first VLAN.

154. (New) The method of claim 153,

wherein said determining the first VLAN of the plurality of possible VLANs comprises indexing into the data structure using the identification information to determine the first VLAN of the plurality of possible VLANs stored in the data structure corresponding to the identification information.

155. (New) The method of claim 153, wherein the memory medium is comprised in the first access point.

156. (New) The method of claim 153,

wherein the data structure further comprises associated methods for providing data to the network; and

wherein said determining the first VLAN of the plurality of possible VLANs includes accessing the memory medium and using the received identification information to determine the first VLAN and an associated method for providing data to the network.

157. (New) The method of claim 146,

wherein the identification information comprises a System Identification.

158. (New) The method of claim 157, wherein the System Identification comprises one or more of a wireless Ethernet Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID).

159. (New) The method of claim 158, wherein the BSSID comprises a media access control (MAC) ID.

160. (New) The method of claim 146, further comprising:  
determining an access level for the portable computing device after receiving the identification information;

wherein said providing the received data to the network using the first VLAN determined in said determining is based on the determined access level.

161. (New) The method of claim 146, further comprising:  
the first access point concurrently using a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices.

162. (New) The method of claim 161, wherein a first RF channel of the plurality of RF channels and a second RF of the plurality of RF channels are non-overlapping RF channels.

163. (New) The method of claim 146, wherein the network is operable to support IEEE 802.1p.

164. (New) The method of claim 146, wherein the network is operable to enforce a predefined quality of service (QoS) metric to the first VLAN.

165. (New) The method of claim 146, further comprising:  
the first access point broadcasting a plurality of possible System Identifications (SIDs), wherein each of the plurality of possible SIDs is associated with at least one VLAN of the plurality of possible VLANs.

166. (New) The method of claim 165,  
wherein said broadcasting the plurality of possible SIDs includes a beacon format.

167. (New) The method of claim 146, wherein the first access point is arranged at a known geographic location, the method further comprising:

providing network access to the portable computing device using the first VLAN determined in said determining; and

determining a geographic location of the portable computing device;

wherein said providing network access comprises selectively providing network access to the portable computing device based on the determined geographic location of the portable computing device.

168. (New) The method of claim 146, wherein the first access point is arranged at a known geographic location, the method further comprising:

providing network access to the portable computing device using the first VLAN determined in said determining;

wherein said providing network access comprises selectively providing network access to the portable computing device based on the known geographic location of the first access point.

169. (New) The method of claim 146, wherein the first access point is arranged at a known geographic location, the method further comprising:

providing network access to the portable computing device using the first VLAN determined in said determining; and

determining an access level for the portable computing device after receiving the identification information;

wherein said providing network access comprises selectively providing network access to the portable computing device based on the known geographic location of the first access point and the determined access level.

170. (New) The method of claim 146, further comprising:

assigning a wireless communication channel for communication between the first access point and the portable computing device.

171. (New) The method of claim 170, wherein the first access point assigns the wireless communication channel for communication between the first access point and the portable computing device.

172. (New) The method of claim 170, wherein said assigning comprises assigning the wireless communication channel based on the identification information received from the portable computing device.

173. (New) A method for providing access to a network system which comprises a network, the method comprising:

- a first access point coupled to the network receiving identification information from a portable computing device in a wireless manner, wherein the identification information indicates a first VLAN of a plurality of possible VLANs;

- wherein at least a subset of each of the plurality of possible VLANs corresponds to a respective network service provider of a plurality of possible network service providers;

- the first access point determining the first VLAN of the plurality of possible VLANs for the portable computing device after receiving the identification information, wherein the first VLAN corresponds to a first network service provider;

- the first access point receiving data from the portable computing device; and

- providing the received data to the first network service provider using the first VLAN determined in said determining.

174. (New) A network system, comprising:

- a network; and

- a first wireless access point coupled to the network, wherein the first wireless access point is operable to communicate with a portable computing device, wherein the

first wireless access point is configured to receive identification information from the portable computing device indicating a VLAN of a plurality of possible VLANs;

wherein the first wireless access point is operable to determine the VLAN indicated in the identification information; and

wherein the first wireless access point is operable to provide network access to the portable computing device through the determined VLAN.

175. (New) The system of claim 174,

wherein each of the plurality of possible VLANs corresponds to a respective network destination of a plurality of possible network destinations;

wherein the first VLAN corresponds to a first network destination;

wherein the first wireless access point is operable to provide the received data to the first network destination using the first VLAN.

176. (New) The system of claim 175,

wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

177. (New) A network system, comprising:

a plurality of wireless access points coupled to a network, wherein each of the plurality of wireless access points is operable to communicate with a portable computing device in a wireless fashion, wherein each of the plurality of wireless access points is configured to receive identification information from the portable computing device indicating a VLAN of a plurality of possible VLANs;

wherein each of the plurality of access points is operable to determine the VLAN indicated by the identification information;

wherein each of the plurality of wireless access points is operable to provide network access to the portable computing device through the determined VLAN.

178 (New) The network system of claim 177,  
wherein each of at least a subset of the plurality of possible VLANs is associated with a respective network service provider; and  
wherein the first access point is operable to maintain an association between each of the at least a subset of the plurality of possible VLANs and the respective network provider.

179 (New) The network system of claim 177,  
wherein each of at least a subset of the plurality of possible VLANs is associated with a respective network service provider; and  
wherein network access is provided to the portable computing device through the first access point, the determined VLAN, and the respective network provider.

180. (New) The network system of claim 177,  
wherein the identification information comprises a System ID (SID) of a plurality of possible SIDs; and  
wherein the first access point is operable to recognize the SID of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is associated with a respective one of the plurality of possible VLANs.

181 (New) The network system of claim 180,  
wherein at least a subset of the plurality of possible SIDs comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID)

182. (New) The network system of claim 180,  
wherein the first access point is operable to maintain associations between the plurality of possible SIDs and the plurality of the plurality of possible VLANs.

183. (New) The network system of claim 180,



wherein each of at least a subset of the plurality of possible VLANs is associated with a service provider; and

wherein the first access point is operable to maintain associations between each of at least a subset of the plurality of possible SIDs and a plurality of active subscribers of each service provider.

184. (New) The network system of claim 180,

wherein the first access point is operable to broadcast at least a subset of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is associated with a respective one of the plurality of VLANs.

185. (New) The network system of claim 184,

wherein the first access point is operable to use a beacon format to broadcast the at least a subset of the plurality of possible SIDs.

186. (New) The network system of claim 184,

wherein the at least a subset of the plurality of possible SIDs comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID).

187. (New) The network system of claim 177, wherein at least one of said plurality of access points comprises computer software which implements a plurality of virtual access points, wherein each virtual access point of the plurality of virtual access points corresponds to one of the plurality of possible VLANs, and wherein each virtual access point of the plurality of virtual access points provides network access services to one or more portable computing devices through the corresponding VLAN.

188. (New) The network system of claim 187, wherein each virtual access point of the plurality of virtual access points provides access point functionality implemented in software, wherein each virtual access point of the plurality of virtual access points appears as a physical access point to the portable computing device.

189. (New) The network system of claim 187, wherein each virtual access point of the plurality of virtual access points executes a wireless protocol stack.

190. (New) The network system of claim 189, wherein the wireless protocol stack comprises an IEEE 802.11 protocol stack.

191. (New) The network system of claim 187, wherein each virtual access point of the plurality of virtual access points includes an Extended Service Set ID (ESSID), and wherein each ESSID corresponds to one of the plurality of possible VLANs.

192. (New) The network system of claim 177, further comprising:  
a memory medium coupled to the network which stores a data structure comprising a list of identification information entries and a corresponding list of the plurality of possible VLANs;

wherein, in said determining the VLAN, each of the plurality of access points is operable to access the memory medium and use the received identification information to determine the VLAN.

193. (New) The network system of claim 192, wherein the memory medium is comprised in one or more of the plurality of access points.

194. (New) The network system of claim 177, wherein the plurality of access points are maintained by a first network service provider; and

wherein the identification information indicates a second network service provider.

195. (New) The network system of claim 177, wherein the plurality of access points are arranged at known locations in a geographic region, wherein each access point is operable to provide geographic location information indicating a known geographic location of the portable computing device; and

wherein network access is selectively provided to the portable computing device based on the known geographic location of the portable computing device.

196. (New) The network system of claim 177, wherein the first access point is operable to assign a wireless communication channel for communication between the first access point and the portable computing device.

197. (New) The network system of claim 177, wherein one or more of the plurality access points are operable to assign a wireless communication channel based on one or more of:

the identification information received from the portable computing device, and  
a determined access level for the portable computing device, wherein said access level is determined by one of said one or more of the access points after receiving the identification information.

198. (New) The network system of claim 177, wherein one or more of the plurality access points are operable to assign a quality of service (QoS) based on one or more of:

the identification information received from the portable computing device, and  
a determined access level for the portable computing device, wherein said access level is determined by one of said one or more of the access points after receiving the identification information.

199. (New) The network system of claim 177, wherein the network is operable to support IEEE 802.1p.

200. (New) The network system of claim 177,  
wherein the first access point is operable to concurrently use a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices.

201. (New) The network system of claim 200, wherein a first RF channel of the plurality of RF channels and a second RF of the plurality of RF channels are non-overlapping RF channels.

202. (New) A method for operating a network system, the method comprising:  
a first access point coupled to a network receiving identification information from a portable computing device in a wireless manner;

the first access point determining a VLAN tag corresponding to the identification information;

the first access point receiving data from the portable computing device in a wireless manner; and

providing the VLAN tag and the data received from the portable computing device to the network, wherein the VLAN tag is usable by the network to route the data received from the portable computing device to a network destination.

203. (New) The method of claim 202, wherein the first access point and the portable computing device communicate using wireless Ethernet.

204. (New) The method of claim 202,  
wherein the identification information comprises a System Identification.

205. (New) The method of claim 204, wherein the System Identification comprises one or more of a wireless Ethernet Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID).

206. (New) The method of claim 202,  
wherein said determining comprises accessing a memory medium coupled to the network to determine the VLAN tag corresponding to the identification information.

207. (New) The method of claim 206,

wherein the memory medium comprises a data structure which includes a list of identification information entries and a corresponding list of VLAN tags.

208. (New) The method of claim 207,  
wherein said determining comprises using the identification information to index into the data structure using the identification information to determine the VLAN tag.

209. (New) The method of claim 206,  
wherein the first access point comprises the memory medium.

210. (New) The method of claim 202, wherein the identification information comprises a media access control (MAC) ID.

211. (New) The method of claim 202, wherein the identification information comprises a digital certificate.

212. (New) The method of claim 202, further comprising:  
the first access point receiving second identification information from a second portable computing device in a wireless manner;  
the first access point determining a second VLAN tag corresponding to the second identification information;  
the first access point receiving second data from the second portable computing device in a wireless manner; and  
providing the second VLAN tag and the second data received from the second portable computing device to the network, wherein the second VLAN tag is usable by the network to route the second data received from the second portable computing device to a second network destination;  
wherein the identification information is different from the second identification information; and  
wherein the network destination is different from the second network destination.

213. (New) The method of claim 212,  
wherein the second identification information comprises a System Identification.

214. (New) The method of claim 213, wherein the System Identification comprises one or more of a wireless Ethernet Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID).

215. (New) The method of claim 202, further comprising:  
determining a quality of service based on the received identification information;  
wherein said providing the VLAN tag and the data received from the portable computing device to the network is based on the quality of service.

216. (New) The method of claim 202, wherein the VLAN tag comprises quality of service information, wherein the quality of service information indicates a quality of service;

wherein the network is operable to route the data received from the portable computing device to the network destination based on the quality of service indicated by the quality of service information.

217. (New) The method of claim 202, further comprising:  
a computer system at the network destination receiving the data from the portable computing device; and  
providing network access to the portable computing device.

218. (New) The method of claim 202, wherein the first access point is arranged at a known geographic location, the method further comprising:

the first access point providing geographic location information indicating a known geographic location of the portable computing device;

a computer system at the network destination receiving the data from the portable computing device; and

providing network access to the portable computing device;

wherein said providing network access comprises selectively providing network access to the portable computing device based on the known geographic location of the portable computing device.

219. (New) The method of claim 202, wherein the first access point is arranged at a known geographic location, the method further comprising:

the first access point providing geographic location information indicating a known geographic location of the portable computing device;

a computer system at the network destination receiving the data from the portable computing device;

providing network access to the portable computing device; and

determining an access level for the portable computing device after receiving the identification information;

wherein said providing network access comprises selectively providing network access to the portable computing device based on the known geographic location of the portable computing device and the determined access level.

220. (New) The method of claim 202, further comprising:

the first access point concurrently using a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices.

221. (New) The method of claim 220, wherein a first RF channel of the plurality of RF channels and a second RF of the plurality of RF channels are non-overlapping RF channels.

222. (New) A wireless access point comprising:

a processor;

a memory medium coupled to the processor;

a port coupled to the processor, wherein the port is operable to be coupled to a network; and

a wireless transceiver coupled to the processor;

wherein the memory medium comprises program instructions which are executable by the processor to:

communicate with a first portable computing device through the wireless transceiver, wherein the wireless transceiver and the first portable computing device communicate using a first System Identification, wherein the first System Identification comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID); and

communicate with a second portable computing device through the wireless transceiver, wherein the wireless transceiver and the second portable computing device communicate using a second System Identification, wherein the second System Identification comprises one or more of a SSID, an Extended ESSID, and a Basic BSSID;

wherein the first System Identification is different from the second System Identification.

223. (New) The wireless access point of claim 222,

wherein the program instructions are further executable by the processor to perform said communicating with the first portable computing device through the wireless transceiver and said communicating with the second portable computing device through the wireless transceiver are performed concurrently.

224. (New) The wireless access point of claim 222,

wherein, in said communicating with the first portable computing device through the wireless transceiver, the wireless access point and the first portable computing device communicate using wireless Ethernet; and

wherein, in said communicating with the second portable computing device through the wireless transceiver, the wireless access point and the second portable computing device communicate using wireless Ethernet.

225. (New) The wireless access point of claim 222,



wherein, in said communicating with the first portable computing device through the wireless transceiver, the wireless access point receives first data from the first portable computing device; and

wherein, in said communicating with the second portable computing device through the wireless transceiver, the wireless access point receives second data from the second portable computing device.

226. (New) The wireless access point of claim 225,  
wherein the memory medium stores a data structure which comprises a list of System Identification entries each indicating network destination information;  
wherein the program instructions are further executable by the processor to:  
access the data structure;  
determine first network destination information indicated by the first System Identification;  
determine second network destination information indicated by the second System Identification;  
transmit the first network destination information and at least a portion of the first data to the network, wherein the first network destination information is usable to route the at least a portion of the first data to a first network destination indicated by the first network destination information; and  
transmit the second network destination information and at least a portion of the second data to the network, wherein the second network destination information is usable to route the at least a portion of the second data to a second network destination indicated by the second network destination information.

227. (New) The wireless access point of claim 226,  
wherein the first network destination information comprises a first VLAN tag;  
and  
wherein the second network destination information comprises a second VLAN tag.

228. (New) The wireless access point of claim 222,  
wherein the first network destination is a destination of a first service provider;  
wherein the second network destination is a destination of a second service provider.

229. (New) The wireless access point of claim 222,  
wherein the first network destination is a destination of a first service provider;  
wherein the second network destination is the destination of the first service provider.

230. (New) The wireless access point of claim 222,  
wherein the memory medium stores a data structure which comprises a list of network destination information entries, wherein each entry indicates at least one System Identification;

wherein, in said communicating with the first portable computing device through the wireless transceiver, the program instructions are further executable by the processor to:

receive, from the network, first network destination information and first data from the first network destination;

access the data structure; and

determine the first System Identification indicated by the first network destination information; and

transmit the first data to the first portable computing device, wherein, in said transmitting the first data to the first portable computing device, the program instructions are further executable by the processor to use the first System Identification;

wherein, in said communicating with the second portable computing device through the wireless transceiver, the program instructions are further executable by the processor to:

receive, from the network, second network destination information and second data from the second network destination;

access the data structure;

determine the second System Identification indicated by the second network destination information; and

transmit the second data to the second portable computing device, wherein, in said transmitting the second data to the second portable computing device, the program instructions are further executable by the processor to use the second System Identification.

231. (New) The wireless access point of claim 222, wherein the program instructions are further executable by the processor to:

concurrently broadcast, through the wireless transceiver, the first System Identification and the second System Identification.

232 (New) The wireless access point of claim 231, wherein, in said broadcasting, the program instructions are further executable by the processor to use a beacon format.

233. (New) The wireless access point of claim 222, wherein, in said communicating with the first portable computing device, the first program instructions are further executable by the processor to use a first media access control (MAC) ID; and

wherein, in said communicating with the second portable computing device, the second program instructions are further executable by the processor to use a second MAC ID;

wherein the first MAC ID is different from the second MAC ID.

234. (New) A method for providing access to a network system, the method comprising:

a first access point coupled to a network receiving first wireless Ethernet System Identification information and first data from a first portable computing device, wherein

the first portable computing device and the first access point communicate using wireless Ethernet;

the first access point receiving second wireless Ethernet System Identification information and second data from a second portable computing device, wherein the second portable computing device and the first access point communicate using wireless Ethernet;

determining a first network destination for the first portable computing device based on the first wireless Ethernet System Identification information;

determining a second network destination for the second portable computing device based on the second wireless Ethernet System Identification information;

providing the first data to the first network destination; and

providing the second data to the second network destination;

wherein the first wireless Ethernet System Identification information is different from the second wireless Ethernet System Identification information.

235. (New) The method of claim 234,

wherein said providing the first data to the first network destination comprises using a first VLAN; and

wherein said providing the second data to the second network destination comprises using a second VLAN.

236. (New) The method of claim 234, wherein the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information each comprises a basic service set ID (BSSID).

237. (New) The method of claim 234, wherein the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information each comprises a service set ID (SSID).

238. (New) The method of claim 234, wherein the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information each comprises an extended service set ID (ESSID).

239. (New) The method of claim 234, further comprising:  
the first access point broadcasting the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information.

240. (New) The method of claim 239, wherein the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information each comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID).

241. (New) The method of claim 239,  
wherein said broadcasting includes a beacon format.

242. (New) The method of claim 234, wherein the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information each comprises an IEEE 802.11 System Identification.

243. (New) The method of claim 234, further comprising:  
a first computer system at the first network destination receiving the first data and providing network access to the first portable computing device; and  
a second computer system at the second network destination receiving the second data and providing network access to the second portable computing device.

244. (New) A carrier medium comprising program instructions for providing access to a network system, wherein the program instructions are executable by a wireless access point to:

communicate with a first portable computing device through a wireless transceiver of the access point, wherein the wireless transceiver and the first portable computing device communicate using a first System Identification, wherein the first System Identification comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID); and

communicate with a second portable computing device through the wireless transceiver, wherein the wireless transceiver and the second portable computing device communicate using a second System Identification, wherein the second System Identification comprises one or more of a SSID, an Extended ESSID, and a Basic BSSID;

wherein the first System Identification is different from the second System Identification.

245. (New) The carrier medium of claim 244,

wherein the program instructions are further executable by the wireless access point to perform said communicating with the first portable computing device through the wireless transceiver and said communicating with the second portable computing device through the wireless transceiver are performed concurrently.

246. (New) The carrier medium of claim 244,

wherein the program instructions are further executable by the wireless access point to perform said communicating with the first portable computing device through the wireless transceiver using wireless Ethernet; and

wherein the program instructions are further executable by the wireless access point to perform communicating with the second portable computing device through the wireless transceiver using wireless Ethernet.

247. (New) The carrier medium of claim 244,

wherein, in said communicating with the first portable computing device through the wireless transceiver, the wireless access point receives first data from the first portable computing device; and

wherein, in said communicating with the second portable computing device through the wireless transceiver, the wireless access point receives second data from the second portable computing device.

248. (New) The carrier medium of claim 247,  
wherein the memory medium stores a data structure which comprises a list of System Identification entries each indicating network destination information; and  
wherein the program instructions are further executable by the wireless access point to:

- access the data structure;
- determine first network destination information indicated by the first System Identification;
- determine second network destination information indicated by the second System Identification;
- transmit the first network destination information and at least a portion of the first data to the network, wherein the first network destination information is usable to route the at least a portion of the first data to a first network destination indicated by the first network destination information; and
- transmit the second network destination information and at least a portion of the second data to the network, wherein the second network destination information is usable to route the at least a portion of the second data to a second network destination indicated by the second network destination information.

249. (New) The carrier medium of claim 248,  
wherein the first network destination information comprises a first VLAN tag;  
and  
wherein the second network destination information comprises a second VLAN tag.

250. (New) The carrier medium of claim 244,

wherein the first network destination is a destination of a first service provider;  
and

wherein the second network destination is a destination of a second service provider.

251. (New) The carrier medium of claim 244,  
wherein the first network destination is a destination of a first service provider;  
and

wherein the second network destination is the destination of the first service provider.

252. (New) The carrier medium of claim 244,  
wherein the memory medium stores a data structure which comprises a list of network destination information entries, wherein each entry indicates at least one System Identification;

wherein, in said communicating with the first portable computing device through the wireless transceiver, the program instructions are further executable by the wireless access point to:

receive, from the network, first network destination information and first data from the first network destination;

access the data structure; and

determine the first System Identification indicated by the first network destination information; and

transmit the first data to the first portable computing device, wherein, in said transmitting the first data to the first portable computing device, the program instructions are further executable by the wireless access point to use the first System Identification;

wherein, in said communicating with the second portable computing device through the wireless transceiver, the program instructions are further executable by the wireless access point to:



receive, from the network, second network destination information and second data from the second network destination;

access the data structure;

determine the second System Identification indicated by the second network destination information; and

transmit the second data to the second portable computing device, wherein, in said transmitting the second data to the second portable computing device, the program instructions are further executable by the wireless access point to use the second System Identification.

253. (New) The carrier medium of claim 244, wherein the program instructions are further executable by the wireless access point to:

concurrently broadcast, through the wireless transceiver, the first System Identification and the second System Identification.

254. (New) The carrier medium of claim 253,

wherein, in said broadcasting, the program instructions are further executable by the wireless access point to use a beacon format.

255. (New) The carrier medium of claim 244,

wherein, in said communicating with the first portable computing device, the first program instructions are further executable by the wireless access point to use a first media access control (MAC) ID; and

wherein, in said communicating with the second portable computing device, the second program instructions are further executable by the wireless access point to use a second MAC ID;

wherein the first MAC ID is different from the second MAC ID.

256. (New) A carrier medium comprising program instructions for providing access to a network system, wherein the program instructions are executable by a wireless access point to:

- receive identification information from a portable computing device in a wireless manner, wherein the identification information indicates a first VLAN of a plurality of possible VLANs;

- determine the first VLAN of the plurality of possible VLANs for the portable computing device after receiving the identification information;

- receive data from the portable computing device; and

- providing the received data to a network using the first VLAN.

257. (New) The carrier medium of claim 256,

- wherein the first VLAN corresponds to a first network destination;

- wherein, in said providing, the program instructions are further executable by the wireless access point to provide the received data to the first network destination using the first VLAN.

257. (New) The carrier medium of claim 256,

- wherein each of the plurality of possible VLANs corresponds to a respective network destination of a plurality of possible network destinations;

- wherein the first VLAN corresponds to a first network destination;

- wherein, in said providing, the program instructions are further executable by the wireless access point to provide the received data to the first network destination using the first VLAN.

258. (New) The carrier medium of claim 257,

- wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

259. (New) The method of claim 257,

wherein at least a subset of the network destinations comprise wireless service providers.

260. (New) The carrier medium of claim 257, wherein the program instructions are further executable by the wireless access point to:

- receive second identification information from a second portable computing device in a wireless manner, wherein the second identification information indicates a second VLAN of the plurality of possible VLANs;

- determine the first VLAN of the plurality of possible VLANs for the portable computing device after receiving the identification information;

- receive data from the portable computing device; and

- provide the received data to the network using the first VLAN.

261. (New) The carrier medium of claim 256, wherein the program instructions are further executable by the wireless access point to:

- receive second identification information from a second portable computing device in a wireless manner, wherein the second identification information indicates a second VLAN of the plurality of possible VLANs;

- determine the second VLAN of the plurality of possible VLANs after receiving the second identification information;

- receive second data from the second portable computing device; and

- provide the second received data to the network using the second VLAN.

262. (New) The carrier medium of claim 256,

- wherein, in said determining the first VLAN of the plurality of possible VLANs, the program instructions are further executable by the wireless access point to access a memory medium coupled to the network and use the received identification information to determine the first VLAN, wherein the memory medium which stores a data structure comprising a list of identification information and a corresponding list of the plurality of possible VLANs.

263. (New) The carrier medium of claim 262,  
wherein, in said determining the first VLAN of the plurality of possible VLANs,  
the program instructions are further executable by the wireless access point to index into  
the data structure using the identification information to determine the first VLAN of the  
plurality of possible VLANs stored in the data structure corresponding to the  
identification information.

264. (New) The carrier medium of claim 262, wherein the memory medium is  
comprised in the first access point.

265. (New) The carrier medium of claim 262,  
wherein the data structure further comprises associated methods for providing  
data to the network; and

wherein, in said determining the first VLAN of the plurality of possible VLANs,  
the program instructions are further executable by the wireless access point to access the  
memory medium and use the received identification information to determine the first  
VLAN and an associated method for providing data to the network.

266. (New) The carrier medium of claim 256,  
wherein the identification information comprises a System Identification.

267. (New) The carrier medium of claim 266, wherein the System Identification  
comprises one or more of a wireless Ethernet Service Set ID (SSID), an Extended Service  
Set ID (ESSID), and a Basic Service Set ID (BSSID).

268. (New) The carrier medium of claim 267, wherein the BSSID comprises a  
media access control (MAC) ID.

269. (New) The carrier medium of claim 256, wherein the program instructions  
are further executable by the wireless access point to:

determine an access level for the portable computing device after receiving the identification information;

wherein, in said providing the received data to the network using the first VLAN, the program instructions are further executable by the wireless access point to provide the received data to the network using the first VLAN based on the determined access level.

270. (New) The carrier medium of claim 256, wherein the program instructions are further executable by the wireless access point to:

concurrently use a plurality of radio frequency (RF) channels for communicating with one or more portable computing devices.

271. (New) The carrier medium of claim 270, wherein a first RF channel of the plurality of RF channels and a second RF of the plurality of RF channels are non-overlapping RF channels.

272. (New) The carrier medium of claim 256, wherein the program instructions are further executable by the wireless access point to:

broadcast a plurality of possible System Identifications (SIDs), wherein each of the plurality of possible SIDs is associated with at least one VLAN of the plurality of possible VLANs.

273. (New) The carrier medium of claim 272,

wherein, in said broadcasting the plurality of possible SIDs, the program instructions are further executable by the wireless access point to use a beacon format.

274. (New) The carrier medium of claim 256, wherein the wireless access point is arranged at a known geographic location;

wherein the program instructions are further executable by the wireless access point to:

determine a geographic location of the portable computing device; and

provide network access to the portable computing device using the first VLAN determined in said determining, wherein, in said providing network access, the program instructions are further executable by the wireless access point to selectively provide network access to the portable computing device based on the determined geographic location of the portable computing device.

275. (New) The carrier medium of claim 256, wherein the wireless access point is arranged at a known geographic location;

wherein the program instructions are further executable by the wireless access point to:

providing network access to the portable computing device using the first VLAN determined in said determining, wherein, in said providing network access, the program instructions are further executable by the wireless access point to selectively provide network access to the portable computing device based on the known geographic location of the wireless access point.

276. (New) The carrier medium of claim 256, wherein the wireless access point is arranged at a known geographic location;

wherein the program instructions are further executable by the wireless access point to:

determine an access level for the portable computing device after receiving the identification information; and

provide network access to the portable computing device using the first VLAN determined in said determining, wherein, in said providing network access, the program instructions are further executable by the wireless access point to selectively provide network access to the portable computing device based on the known geographic location of the first access point and the determined access level.

277. (New) The carrier medium of claim 256, wherein the program instructions are further executable by the wireless access point to:

assign a wireless communication channel for communication between the first access point and the portable computing device.

278. (New) The carrier medium of claim 277,

wherein, in said assigning, the program instructions are further executable by the wireless access point to assign the wireless communication channel based on the identification information received from the portable computing device.

279. (New) A carrier medium comprising program instructions for providing access to a network system, wherein the program instructions are executable by a wireless access point to:

- receive first wireless Ethernet System Identification information and first data from a first portable computing device, wherein the first portable computing device and the wireless access point communicate using wireless Ethernet;

- receive second wireless Ethernet System Identification information and second data from a second portable computing device, wherein the second portable computing device and the wireless access point communicate using wireless Ethernet;

- determine a first network destination for the first portable computing device based on the first wireless Ethernet System Identification information;

- determine a second network destination for the second portable computing device based on the second wireless Ethernet System Identification information;

- provide the first data to the first network destination; and

- provide the second data to the second network destination;

- wherein the first wireless Ethernet System Identification information is different from the second wireless Ethernet System Identification information.

280. (New) The carrier medium of claim 279,

wherein, in said providing the first data to the first network destination, the program instructions are further executable by the wireless access point to use a first VLAN; and

wherein, in said providing the second data to the second network destination, the program instructions are further executable by the wireless access point to use a second VLAN.

281. (New) The carrier medium of claim 279, wherein each of the first wireless Ethernet System Identification information and the second wireless Ethernet System Identification information comprises one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID).